

WHAT IS CLAIMED IS:

1 1. An auditory test instrument comprising:
2 an audiometer;
3 a plurality of speakers, wherein said speakers are used during testing
4 procedures and hearing instrument evaluation procedures; and
5 means coupled to said audiometer for calibrating said plurality of speakers.

1 2. The auditory test instrument of claim 1, wherein said audiometer
2 further comprises:
3 at least one test probe;
4 a power supply for supplying power to the auditory test instrument;
5 a diagnostic subsystem coupled to said at least one test probe, said
6 diagnostic subsystem adapted to implement at least one auditory diagnostic test;
7 input means adapted to accept commands from a user;
8 a display adapted to display results from said at least one auditory
9 diagnostic test; and
10 at least one processor coupled to said diagnostic subsystem and to said
11 input means.

1 3. The auditory test instrument of claim 2, wherein said power supply
2 is portable and does not require connection to an external power source.

1 4. The auditory test instrument of claim 2, wherein said audiometer
2 further comprises a wireless networking subsystem adapted to wirelessly transmit first
3 signals via a short distance wireless network to a peripheral electronic device or system
4 and adapted to receive second signals via said short distance wireless network from said
5 peripheral electronic device.

1 5. The auditory test instrument of claim 2, wherein said at least one
2 probe is detachably coupled to said audiometer.

1 6. The auditory test instrument of claim 2, wherein said at least one
2 probe is an intelligent probe.

1 7. The auditory test instrument of claim 2, wherein said at least one
2 probe further comprises a memory, wherein probe calibration data is stored in said
3 memory, said probe calibration data automatically communicated to said audiometer
4 upon coupling said at least one probe to said audiometer and providing power to said
5 audiometer.

1 8. The auditory test instrument of claim 2, wherein said at least one
2 probe further comprises a memory, wherein probe configuration data is stored in said
3 memory.

1 9. The auditory test instrument of claim 8, wherein said probe
2 configuration data is automatically communicated to said diagnostic subsystem and
3 wherein said at least one auditory diagnostic test is automatically selected in response to
4 said probe configuration data.

1 10. The auditory test instrument of claim 3, wherein said power supply
2 is rechargeable.

1 11. The auditory test instrument of claim 3, wherein said power supply
2 is rechargeable via a contactless recharging system.

1 12. The auditory test instrument of claim 4, wherein said wireless
2 networking subsystem is a Bluetooth enabled wireless networking subsystem and wherein
3 said peripheral electronic device or system is a Bluetooth enabled electronic device or
4 system.

1 13. The auditory test instrument of claim 4, wherein said peripheral
2 electronic device or system is a LAN system.

1 14. The auditory test instrument of claim 4, wherein said peripheral
2 electronic device or system is a device selected from the group of devices consisting of
3 computers, personal digital assistants, printers, facsimile devices, and cellular telephones.

1 15. The auditory test instrument of claim 2, further comprising a
2 memory, wherein said commands accepted by said input means select a test profile stored
3 in said memory.

1 16. The auditory test instrument of claim 2, further comprising a
2 memory, wherein said commands accepted by said input means provide access to patient
3 data stored in said memory.

1 17. The auditory test instrument of claim 2, further comprising a
2 memory, wherein said commands accepted by said input means provide access to office
3 management tools stored in said memory.

1 18. The auditory test instrument of claim 2, wherein said display is
2 selected from the group of displays consisting of liquid crystal displays, light emitting
3 polymer displays, electroluminescent displays, active matrix electroluminescent displays,
4 organic thin film transistor displays, organic light emitting diode displays, amorphous
5 silicon integrated displays, and pliable display technology displays.

1 19. The auditory test instrument of claim 2, wherein said plurality of
2 speakers are comprised of five speakers.

1 20. The auditory test instrument of claim 2, wherein said plurality of
2 speakers are wirelessly coupled to said audiometer.

1 21. A method of calibrating an auditory test instrument, comprising the
2 steps of:

3 coupling a plurality of speakers to an audiometer;

4 coupling a microphone to said audiometer;

5 automatically emitting a plurality of frequencies and timing signals
6 through each of said plurality of speakers, wherein said automatic emitting step is
7 controlled by said audiometer;

8 automatically calculating speaker levels and timing delays for each of said
9 plurality of speakers, wherein said automatic calculating step is controlled by said
10 audiometer; and

11 automatically calibrating individual speakers with a multi-band equalizer,
12 wherein said automatic calibrating step is controlled by said audiometer and wherein said
13 multi-band equalizer is integrated into said audiometer.